

R e m a r k s

Claims 1-24 and 27-59 are pending in this application.

In this Action, the Examiner rejected claims 1-24 and 27(sic)-59 under 35 U.S.C. §103(a) over U.S. patent number 5,963,911 (Walker et al.) in view of U.S. patent number 6,389,400 (Bushey et al.). This rejection is respectfully traversed.

Independent claims 1, 9, 28, 29, 32, 33, 36, and 44 relate in part to determining a value to the resource of servicing the work items, or determining a resource treatment value, wherein the value to the resource or the resource treatment value is recited as “a measure of how the resource is spending time compared with other resources and goals of the individual resource.”

The Examiner acknowledges that Walker et al. lack this teaching, but asserts that Bushey et al. “teaches incorporating the goals of a resource by weighting attributes to create an agent model (see column 4, lines 1-3)” and that “Bushey et al. discloses measuring how a resource is spending time compared with other resources and that resource’s goals by creating an agent model (by weighting attributes) and comparing the customer’s model with the agents’ model (see column 4, lines 1-33).”

The Examiner’s assertion is incorrect. Column 4, lines 1-3, merely state that “the weighting value for each attribute is used in calculating and constructing of an agent model.” Neither the weighting values nor the attributes are disclosed as relating to the goals of a resource. The weighting value is merely described as being “based on a relative importance of each attribute,” column 3, lines 58-59. The agent model is described as being constructed by “using the sales strategies attributes values, customer service behaviors attributes values, and sales performance attributes values,” column 3, lines 52-55. It should therefore be evident that, contrary to the Examiner’s assertion, the passage of Bushey et al. referenced by the Examiner does not disclose incorporating the goals of a resource.

Column 4, lines 1-33, further state that performance-optimizing calculations are used to generate match scores for agents, that the best match agent is the agent with the highest match score, that a list of optimal agents is generated based on agent match scores that are above an optimal threshold, that the customer request is routed to an available agent on the list of optimal agents, that the customer request is placed in a wait queue until an agent on the list of optimal agents becomes available, that additional agents are added to the list of optimal agents the longer the request from this customer remains in the wait queue, that the additional agent are added after reducing the optimal threshold, that wait time increases while the customer request is in the wait queue, that the customer request is routed to an available agent with the highest match score when the wait time equals a maximum wait time, and that the optimal threshold and the maximum wait time are set by a call center controller. The descriptions of the weighting value and the agent model (column 3, lines 52-55 and 58-59), which go into the computation of the match score, were already referenced above. The customer model, which also goes into the computation of the match score, is described as being constructed from the customer's historical information, information regarding the customer's current task objective, and the customer's current expectations for satisfaction such as his willingness to be up-sold, his preference for lengthy or brief negotiations, and his desire to have questions answered, column 3, lines 14-41. None of this material includes even a suggestion of measuring how a resource is spending time compared with other resources. It should therefore be evident that, contrary to the Examiner's assertion, the passage of Bushey et al. referenced by the Examiner does not disclose measuring how a resource is spending its time compared with other resources and that resource's goals by creating an agent model and comparing the customer's model with the agent's model.

Since the art applied by the Examiner fails to disclose, teach, or suggest the explicit recitations of applicant's independent claims 1, 28, 29, 32, 33, 36, and 44, the rejection of these claims and all claims dependent therefrom is not well founded.

Independent claims 13, 21, 30, 31, 34, 35, 48, and 56 relate in part to determining a value to the work item of being serviced by the resource, or determining a work item treatment value, wherein the value to the work item or work item treatment value is recited as "a measure of how the work item is treated compared to other work items and treatment goals of the individual work item." The Examiner acknowledges that Walker et al. lack this teaching. But the Examiner asserts that: "Bushey et al. teaches creating a model of the customer based on their preferences, skills and other attributes (see column 3, lines 14-67). Bushey et al. also teaches selecting a determined work item, or customer, that has a best combined value of the business value and the value to the work item to be served by the resource as the highest match score between the agent and the resource is selected (see column 4, lines 1-33)." The Examiner further asserts that: "Bushey et al. discloses creating a weighted attribute for each customer (see column 3, lines 14-67). Bushey et al. also discloses comparing the customer model with the agent model to determine the highest match score (see column 4, lines 7-9). If the customer cannot have the highest score matched agent, after a predetermined period of time the second best matching agent answers the call (see column 4, lines 20-29)."

The disclosures of the passages referenced by the Examiner have already been discussed above. Even if the Examiner is correct in her just-cited characterization of these disclosures, even the Examiner herself does not go so far as to actually assert that they disclose "a measure of how the work item is treated compared to other work items and treatment goals of the individual work item." And, indeed, there is no such disclosure. In particular, the passages of Bushey et al. referenced by the

Examiner contain not one iota of a suggestion of a measure of how the work item is treated compared to other work items, as the preceding discussion of the disclosure of these passages amply shows. And since "a measure of how the work item is treated compared to other work items and treatment goals of the individual work item" is an explicitly recited requirement of each of the independent claims 13, 21, 30, 31, 34, 35, 48, and 56, the references do not and cannot render unpatentable these claims and all claims that depend therefrom.

The Examiner's assertions of correspondence between the recitations of many other claims and the teaching of Walker et al. and Bushey et al. are likewise not well founded, as is shown below.

Claim 14 recites using a business value weight and a work item value weight, both corresponding to the work item, to weigh the business value and the value to the work item. The Examiner asserted that Walker et al. disclose weighted values at col. 7, lines 35-59. The Examiner is mistaken. The referenced passage of Walker et al. does not disclose, teach, or suggest any weighting at all.

But even if Walker et al. do suggest the use of weighted values in general, and acknowledging that Bushey et al. do disclose the use of weighted values, it is still not seen how Walker et al., and Bushey et al. can be interpreted to suggest weighting the business value and the value to the work item each by its own weight and both of which weights correspond to the work item, as required by claim 14. Unless such specific disclosure, teaching, or suggestion can be found in the references, they cannot be said to render claim 14 unpatentable.

Claim 15 further defines a weighted business value as "a product of (a) the business value weight corresponding to the work item, and (b) a sum of products of a level of each of said needed skill of the resource and a weight of said needed skill of the work item." The Examiner asserted that such teaching may be found in Walker et al. at col. 7, lines 11-24. This passage merely states that factors such as the ability

of the technician to perform the job and the amount of non-productive technician time can be taken into account and weighted for probability. It is not seen how this disclosure teaches or suggests either the particular parameters, or the particular computation using those parameters, that are recited in claim 15. For example, applicant respectfully asserts that Walker et al. do not disclose, teach, or suggest either skill levels or skill weights, or the weighting of the sum of the products thereof. If the Examiner continues to believe otherwise, she is requested to point out with particularity the correspondence between the claim's exact parameters and computations and the disclosure of Walker et al.

Claim 15 further defines a weighted work item treatment value as "a product of (c) a work item treatment weight corresponding to the work item and (d) a sum of products of each treatment of the work item and a weight of said treatment of the work item." The Examiner asserted that such teaching of the use of attributes and weights in creating a customer model may be found in Bushey et al. at column 2, lines 56-59. This passage merely states that the behavioral model of agents is calculated from a detailed profile of their sales strategies, customer service behaviors, and sales performance. It is not seen how this disclosure teaches or suggests either the particular parameters, or the particular computation of those parameters, recited in claim 15. If the Examiner continues to believe otherwise, she is requested to point out with particularity where the exact teaching of the claim recitations may be found in Bushey et al.

Claim 16 further recites that the sums of products recited in claim 15 are scaled sums and that the treatments are scaled treatments. The Examiner pointed out that Bushey et al. disclose weighting customer's attributes to create models and using the model scores to create a best match. She then asserted that "Bushey et al. can also scale the scores" Whether or not Bushey et al. can do something is irrelevant; the question is whether they teach, disclose, or suggest doing so. And in this case,

they do not. Applicant fails to find any such teaching in Bushey et al. Applicant therefore requests the Examiner to point out with particularity where “scaling sums” is disclosed in Bushey et al. and where application of this concept to sums of products of skill levels and skill weights and to work-item treatments is suggested anywhere by Bushey et al.

Claim 17 recites that selecting a work item in claim 16 comprises selecting the work item that has a highest sum of the weighted business value and the weighted work item treatment value. Since it has been shown above that Walker et al. and Bushey et al. do not disclose the computation of the weighted business value and the weighted work item treatment value as defined by the base claims, it is not seen how these references can be deemed to disclose a selection based on the sum of these non-existent values.

Claim 20 defines a particular formula for the estimated wait time that a work item will have to wait for service. The wait time is defined as “a product of (a) a ratio of a total number of work items waiting for service and an average number of work items waiting for service, and (b) a sum of average wait times of individual said needed skills each weighted by a ratio of the weight of said individual skill and a sum of the weights of the needed skills.” The Examiner purported to find a corresponding teaching in Walker et al. at Fig. 16, col. 6, lines 53-63, and col. 7, lines 11-24 and 35-59. This figure and passages describe a time-dependent cost function for each job that takes into account the penalty for failing to meet an agreed time, the ability of the technician to perform the job, a weighting of the costs for probability, and the selection of a lowest-cost function from among possible technician-and-job combinations. But it fails to disclose (1) a ratio of total and average numbers of waiting jobs, (2) average wait times of individual needed skills, (3) weights of individual skills, (4) a sum of (3)s, (5) ratios of (3)s and (4), use of (5) as weights for (2), (6) a sum of (5)s, and (7) a product of (1) and (6). Walker et al. thus cannot be said to



disclose, teach, or suggest claim 20. Nor is any such teaching to be found in Bushey et al.

Claims 21 and 30 recite that, for each available work item that needs skills possessed by a resource, the business value is determined as “a sum across all skills of a product of a skill level of the resource in the skill and skill weight of the work item for the skill.” The Examiner purported to find a corresponding disclosure in Walker et al. at col. 7, lines 11-24. The Examiner is mistaken. As was pointed out previously, this passage merely states that factors such as the ability of the technician to perform the job and the amount of non-productive technician time can be taken into account and weighted for probability. Walker et al. in general, and this passage in particular, fail to disclose, teach, or suggest resource skill levels for skills, skill weights of the work items for skills, the products thereof, and the sums of these products. The Examiner’s assertion that “every resource [of Walker et al.] contains a skill level and is weighted according to this skill level when combined with a work item” is wholly unfounded.

Claim 21 further recites that, for each available work item that needs skills possessed by a resource, the work item treatment value is determined as “a sum across all work item treatments of a product of the value of the work item for the work item treatment and a weight of the work item for the work item treatment.” The Examiner purported to find teaching thereof to flow from the disclosure of Bushey et al. of creating a weighted attribute model for each customer, comparing the customer model with the agent model to determine the highest match score, and answering the call with the second best matching agent after a period of time if the customer cannot have the highest score matched agent. The Examiner’s view is unfounded. Claim 21 defines a particular formula for computing work item treatment values, which particular formula is not disclosed by Bushey et al.

9 treatment value, the work item treatment value being a measure of how  
10 the work item is treated compared to other work items and treatment goals  
11 of the individual work item, the work item treatment value comprising a  
12 sum across all work item treatments of a product of the value of the work  
13 item for the work item treatment and a weight of the work item for the work  
14 item treatment; and

15 selecting a determined work item that has a best combined score of  
16 its business value and work item treatment value, to be served by the  
17 resource.

1 22. **(original)** The method of claim 21 wherein:

2 the work item treatments of a work item comprise a time that the  
3 work item has spent waiting to be serviced, an estimated time that the  
4 item will spend waiting to be serviced, and a time by which the work item  
5 has exceeded its target waiting time.

1 23. **(original)** The method of claim 21 wherein:

2 determining a business value comprises

3 determining a scaled business value comprising the business value  
4 scaled by a first scaling factor that is common to all of the determined  
5 work items;

6 determining a work item treatment value comprises

7 for each work item treatment, determining a scaled value of the  
8 work item comprising the value of the work item for that work item  
9 treatment scaled by a scaling factor that is common for that work item  
10 treatment to all of the determined work items, and

11 determining a scaled work item treatment value comprising a sum,  
12 scaled by a second scaling factor that is common to all of the determined  
13 work items, across all work item treatments of a product of the scaled  
14 value of the work item for the work item treatment and a weight of the  
15 work item for the work item treatment; and



16 selecting comprises

17 selecting a determined work item that has a best sum of its scaled  
18 business value and its scaled work item treatment value, to be served by  
19 the resource.

1 24. **(original)** The method of claim 23 wherein:

2 each scaling factor comprises a fraction having in its denominator a  
3 maximum value of the value to which said scaling factor applies of any of  
4 the work items.

1 25. **(canceled)**

1 26. **(canceled)**

1 27. **(original)** An apparatus comprising a processor that executes  
2 instructions to effect the method of one of claims 1-24.

1 28. **(previously amended)** An apparatus for selecting a resource  
2 for a work item, comprising;

3 means for determining available resources that possess skills  
4 needed by the work item;

5 means for determining, for each of the determined resources, a  
6 business value of having the resource service the work item, the business  
7 value being a measure of qualification of the resource for servicing the  
8 work item based on skills of the resource and skill requirements of the  
9 work item;

10 means for determining, for each of the determined resources, a  
11 value to the resource of servicing the work item, the value to the resource  
12 being a measure of how the resource is spending time compared with  
13 other resources and goals of the individual resource; and

14 means for selecting a determined resource that has a best

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15 combined value of the business value and the value to the resource, to  
16 serve the work item.

1 29. **(previously amended)** An apparatus for selecting a resource  
2 for a work item, comprising:

3 means for determining available resources that possess skills  
4 needed by the work item;

5 means for determining, for each of the determined resources, a  
6 business value comprising a sum across all skills of a product of a skill  
7 level of the resource in the skill and a skill weight of the work item for the  
8 skill;

9 means for determining, for each of the determined resources, a  
10 resource treatment value, the resource treatment value being a measure  
11 of how the resource is spending time compared with other resources and  
12 goals of the individual resource, the resource treatment value comprising  
13 a sum across all resource treatments of a product of a value of the  
14 resource for the resource treatment and a weight of the work item for the  
15 resource treatment; and

16 means for selecting a determined resource that has a best  
17 combined score of its business value and its resource treatment value, to  
18 serve the work item.

1 30. **(previously amended)** An apparatus for selecting a work item  
2 for a resource, comprising:

3 means for determining available work items that need skills  
4 possessed by the resource;

5 means for determining, for each of the determined work items, a  
6 business value of having the resource service the work item, the business  
7 value being a measure of qualification of the resource for servicing the  
8 work item based on skills of the resource and skill requirements of the  
9 work item;

10 means for determining, for each of the determined work items, a  
11 value to the work item of being serviced by the resource, the value to the  
12 work item being a measure of how the work item is treated compared to  
13 other work items and treatment goals of the individual work item; and  
14 means for selecting a determined work item that has a best  
15 combined value of the business value and the value to the work item to be  
16 served by the resource.

1 31. **(previously amended)** An apparatus for selecting a work item  
2 for a resource, comprising:

3 means for determining available work items that need skills  
4 possessed by the resource;

5 means for determining, for each of the determined work items, a  
6 business value comprising a sum across all skills of a product of a skill  
7 level of the resource in the skill and a skill weight of the work item for the  
8 skill;

9 means for determining, for each of the determined work items, a  
10 work item treatment value, the work item treatment value being a measure  
11 of how the work item is treated compared to other work items and  
12 treatment goals of the individual work item, the work item treatment value  
13 comprising a sum across all work item treatments of a product of the value  
14 of the work item for the work item treatment and a weight of the work item  
15 for the work item treatment; and

16 means for selecting a determined work item that has a best  
17 combined score of its business value and work item treatment value, to be  
18 served by the resource.

1 32. **(previously amended)** An arrangement for selecting a  
2 resource for a work item, comprising;

3 an effector of determining available resources that possess skills  
4 needed by the work item;

5 an effector of determining, for each of the determined resources, a  
6 business value of having the resource service the work item, the business  
7 value being a measure of qualification of the resource for servicing the  
8 work item based on skills of the resource and skill requirements of the  
9 work item;

10 an effector of determining, for each of the determined resources, a  
11 value to the resource of servicing the work item, the value to the resource  
12 being a measure of how the resource is spending time compared with  
13 other resources and goals of the individual resource; and

14 an effector of selecting a determined resource that has a best  
15 combined value of the business value and the value to the resource, to  
16 serve the work item.

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1 33. **(previously amended)** An arrangement for selecting a  
2 resource for a work item, comprising:

3 an effector of determining available resources that possess skills  
4 needed by the work item;

5 an effector of determining, for each of the determined resources, a  
6 business value comprising a sum across all skills of a product of a skill  
7 level of the resource in the skill and a skill weight of the work item for the  
8 skill;

9 an effector of determining, for each of the determined resources, a  
10 resource treatment value, the resource treatment value being a measure  
11 of how the resource is spending time compared with other resources and  
12 goals of the individual resource, the resource treatment value comprising  
13 a sum across all resource treatments of a product of a value of the  
14 resource for the resource treatment and a weight of the work item for the  
15 resource treatment; and

16 an effector of selecting a determined resource that has a best  
17 combined score of its business value and its resource treatment value, to  
18 serve the work item.

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1           **34. (previously amended)** An arrangement for selecting a work  
2 item for a resource, comprising:  
3           an effector of determining available work items that need skills  
4 possessed by the resource;  
5           an effector of determining, for each of the determined work items, a  
6 business value of having the resource service the work item, the business  
7 value being a measure of qualification of the resource for servicing the  
8 work item based on skills of the resource and skill requirements of the  
9 work item;  
10          an effector of determining, for each of the determined work items, a  
11 value to the work item of being serviced by the resource, the value to the  
12 work item being a measure of how the work item is treated compared to  
13 other work items and treatment goals of the individual work item; and  
14          an effector of selecting a determined work item that has a best  
15 combined value of the business value and the value to the work item to be  
16 served by the resource.

1           **35. (previously amended)** An arrangement for selecting a work  
2 item for a resource, comprising:  
3           an effector of determining available work items that need skills  
4 possessed by the resource;  
5           an effector of determining, for each of the determined work items, a  
6 business value comprising a sum across all skills of a product of a skill  
7 level of the resource in the skill and a skill weight of the work item for the  
8 skill;  
9           an effector of determining, for each of the determined work items, a  
10 work item treatment value, the work item treatment value being a measure  
11 of how the work item is treated compared to other work items and  
12 treatment goals of the individual work item, the work item treatment value  
13 comprising a sum across all work item treatments of a product of the value

14 of the work item for the work item treatment and a weight of the work item  
15 for the work item treatment; and  
16 an effector of selecting a determined work item that has a best  
17 combined score of its business value and work item treatment value, to be  
18 served by the resource.

1 36. **(original)** A computer-readable medium containing  
2 instructions which, when executed in a computer, cause the computer to  
3 perform selection of a resource for a work item, comprising:  
4 determining available resources that possess skills needed by the  
5 work item;  
6 for each of the determined resources, determining a business value  
7 of having the resource service the work item, the business value being a  
8 measure of qualification of the resource for servicing the work item based  
9 on skills of the resource and skill requirements of the work item;  
10 for each of the determined resources, determining a value to the  
11 resource of servicing the work item, the value to the resource being a  
12 measure of how the resource is spending time compared with other  
13 resources and goals of the individual resource; and  
14 selecting a determined resource that has a best combined value of  
15 the business value and the value to the resource, to serve the work item.

1 37. **(original)** The medium of claim 36 wherein:  
2 determining a business value comprises  
3 determining the business value weighted by a business value  
4 weight corresponding to the work item;  
5 determining a value to the resource comprises  
6 determining the value to the resource weighted by a resource value  
7 weight corresponding to the work item; and  
8 selecting comprises  
9 selecting a determined resource that has a best combined value of

10 the weighted business value, and the weighted value to the resource.

1 38. **(original)** The medium of claim 37 wherein:  
2 determining a business value comprises  
3 determining a weighted business value as a product of (a) the  
4 business value weight corresponding to the work item and (b) a sum of  
5 products of a level of each said needed skill of the resource and a weight  
6 of said needed skill of the work item; and  
7 determining a value to the resource comprises  
8 determining a weighted resource treatment value as a product of  
9 (c) a resource treatment weight corresponding to the work item and (d) a  
10 sum of products of each treatment of the resource and a weight of said  
11 treatment of the resource.

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1 39. **(original)** The medium of claim 38 wherein:  
2 the sums of products are scaled sums, and  
3 the treatments are scaled treatments.

1 40. **(original)** The medium of claim 39 wherein:  
2 selecting comprises  
3 selecting the determined resource that has a highest sum of the  
4 weighted business value and the weighted resource treatment value.

1 41. **(original)** The medium of claim 38 wherein:  
2 the resource treatments of a resource comprise a time since the  
3 resource became available and a time that the resource has not spent  
4 serving work items.

1 42. **(original)** The medium of claim 41 wherein:  
2 the treatments of the resource further comprise a measure of an  
3 effect that serving of the work item would have on a goal of the resource.

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1        43. **(original)** The medium of claim 42 wherein:  
2        the measure of the effect comprises a difference between (a) a  
3        distance of an actual allocation of worktime of the resource among skills  
4        from a goal allocation of the worktime of the resource among the skills and  
5        (b) a distance of an estimated allocation of the worktime of the resource  
6        among the skills if the resource serves the work item from the goal  
7        allocation.

1        44. **(original)** A computer-readable medium containing  
2        instructions which, when executed in a computer, cause the computer to  
3        perform selection of a resource for a work item, comprising:  
4        determining available resources that possess skills needed by the  
5        work item;  
6        for each of the determined resources, determining a business value  
7        comprising a sum across all skills of a product of a skill level of the  
8        resource in the skill and a skill weight of the work item for the skill;  
9        for each of the determined resources, determining a resource  
10       treatment value, the resource treatment value being a measure of how the  
11       resource is spending time compared with other resources and goals of the  
12       individual resource, the resource treatment value comprising a sum across  
13       all resource treatments of a product of a value of the resource for the  
14       resource treatment and a weight of the work item for the resource  
15       treatment; and  
16       selecting a determined resource that has a best combined score of  
17       its business value and its resource treatment value, to serve the work  
18       item.

1        45. **(original)** The medium of claim 44 wherein:  
2        the resource treatments of a resource comprise a time since the  
3        resource became available, a time that the resource has spent not serving  
4        work items, and a measure of an effect that serving the work item would  
5        have on a goal of the resource.

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1        46. **(original)** The medium of claim 44 wherein:  
2        determining a business value comprises  
3        determining a scaled business value comprising the business value  
4        scaled by a first scaling factor that is common to all of the determined  
5        resources;  
6        determining a resource treatment value comprises  
7        for each resource treatment, determining a scaled value of the  
8        resource comprising the value of the resource for that resource treatment  
9        scaled by a scaling factor that is common for that resource treatment to all  
10       of the determined resources, and  
11       determining a scaled resource treatment value comprising a sum,  
12       scaled by a second scaling factor that is common to all of the determined  
13       resources, across all resource treatments of a product of the scaled value  
14       of the resource for the resource treatment and a weight of the work item  
15       for the resource treatment; and  
16       selecting comprises  
17       selecting a determined resource that has a best sum of its scaled  
18       business value and its scaled resource treatment value to serve the work  
19       item.

1        47. **(original)** The medium of claim 46 wherein:  
2        each scaling factor comprises a fraction having in its denominator a  
3        maximum value of the value to which said scaling factor applies of any of  
4        the resources.

1        48. **(original)** A computer-readable medium containing  
2        instructions which, when executed in a computer, cause the computer to  
3        perform selection of a work item for a resource, comprising:  
4        determining available work items that need skills possessed by the  
5        resource;  
6        for each of the determined work items, determining a business  
7        value of having the resource service the work item, the business value  
8        being a measure of qualification of the resource for servicing of the work

9 item based on skills of the resource and skill requirements of the work  
10 item;  
11 for each of the determined work items, determining a value to the  
12 work item of being serviced by the resource, the value to the work item  
13 being a measure of how the work item is treated compared to other work  
14 items and treatment goals of the individual work item; and  
15 selecting a determined work item that has a best combined value of  
16 the business value and the value to the work item to be served by the  
17 resource.

1 49. **(original)** The medium of claim 48 wherein:  
2 determining business value comprises  
3 determining the business value weighted by a business value  
4 weight corresponding to the work item;  
5 determining a value to the work item comprises  
6 determining the value to the work item weighted by a work item  
7 value weight corresponding to the work item; and  
8 selecting comprises  
9 selecting a determined work item that has a best combined value of  
10 the weighted business value and the weighted value to the work item.

1 50. **(original)** The medium of claim 49 wherein:  
2 determining a business value comprises  
3 determining a weighted business value as a product of (a) the  
4 business value weight corresponding to the work item and (b) a sum of  
5 products of a level of each said needed skill of the resource and a weight  
6 of said needed skill of the work item; and  
7 determining a value to the work item comprises  
8 determining a weighted work item treatment value as a product of  
9 (c) a work item treatment weight corresponding to the work item and (d) a  
10 sum of products of each treatment of the work item and a weight of said  
11 treatment of the work item.

1 51. **(original)** The medium of claim 50 wherein:  
2 the sums of products are scaled sums, and  
3 the treatments are scaled treatments.

1 52. **(original)** The medium of claim 51 wherein:  
2 selecting comprises  
3 selecting the determined work item that has a highest sum of the  
4 weighted business value and the weighted work item treatment value.

1 53. **(original)** The medium of claim 50 wherein:  
2 the work item treatments of a work item comprise a time that the  
3 work item has been waiting for service and an estimated time that the  
4 work item will have to wait for service.

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1 54. **(original)** The medium of claim 53 wherein:  
2 the treatments of a work item further comprise a time by which the  
3 work item has exceeded its target wait time.

1 55. **(original)** The medium of claim 53 wherein:  
2 the estimated wait time that the work item will have to wait for  
3 service comprises a product of (a) a ratio of a total number of work items  
4 waiting for service and an average number of work items waiting for  
5 service and (b) a sum of average wait times of individual said needed  
6 skills each weighted by a ratio of the weight of said individual skill and a  
7 sum of the weights of the needed skills.

1 56. **(original)** A computer-readable medium containing  
2 instructions which, when executed in a computer, cause the computer to  
3 perform a selection of a work item for a resource, comprising:  
4 determining available work items that need skills possessed by the  
5 resource;  
6 for each of the determined work items, determining a business  
7 value comprising a sum across all skills of a product of a skill level of the

8 resource in the skill and a skill weight of the work item for the skill;  
9 for each of the determined work items, determining a work item  
10 treatment value, the work item treatment value being a measure of how  
11 the work item is treated compared to other work items and treatment goals  
12 of the individual work item, the work item treatment value comprising a  
13 sum across all work item treatments of a product of the value of the work  
14 item for the work item treatment and a weight of the work item for the work  
15 item treatment; and  
16 selecting a determined work item that has a best combined score of  
17 its business value and work item treatment value, to be served by the  
18 resource.

1 57. **(original)** The medium of claim 56 wherein:

2 the work item treatments of a work item comprise a time that the  
3 work item has spent waiting to be serviced, an estimated time that the  
4 item will spend waiting to be serviced, and a time by which the work item  
5 has exceeded its target waiting time.

1 58. **(original)** The medium of claim 56 wherein:

2 determining a business value comprises  
3 determining a scaled business value comprising the business value  
4 scaled by a first scaling factor that is common to all of the determined  
5 work items;

6 determining a work item treatment value comprises  
7 for each work item treatment, determining a scaled value of the  
8 work item comprising the value of the work item for that work item  
9 treatment scaled by a scaling factor that is common for that work item  
10 treatment to all of the determined work items, and  
11 determining a scaled work item treatment value comprising a sum,  
12 scaled by a second scaling factor that is common to all of the determined  
13 work items, across all work item treatments of a product of the scaled  
14 value of the work item for the work item treatment and a weight of the  
15 work item for the work item treatment; and

16        selecting comprises  
17        selecting a determined work item that has a best sum of its scaled  
18 business value and its scaled work item treatment value, to be served by  
19 the resource.

*C1*  
*Contd*  
1        59. (original) The medium of claim 58 wherein:  
2        each scaling factor comprises a fraction having in its denominator a  
3 maximum value of the value to which said scaling factor applies of any of  
4 the work items.

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Claim 22 recites particular work item treatments. Since the prior art fails to disclose the formula of claim 21 for computing work item treatment values, it cannot be said to disclose the use of particular work item treatments in this non-existent formula.

Claim 23 recites three different scaling factors and the application thereof to the computation of business value and work item treatment value. The Examiner pointed out that Bushey et al. disclose creating a customer model using customer attributes, weights, and other information, that the models could be scaled, and that the customer model is compared to agent models to determine the highest match score, and concluded that this teaching would have made it obvious to determine a scaled work item treatment value. Perhaps so. But Walker et al. and Bushey et al. nevertheless fail to disclose a business value scaling factor that is common to all determined work items, a work item value scaling factor that is common for that work item treatment to all of the determined work items, and a value sum scaling factor that is common to all of the determined work items across all work item treatments. Hence, the references cannot be said to render the claim obvious.

Claim 27 depends in part from claims 13-24, and therefore the arguments made above with respect to the non-obviousness of claims 13-24 apply equally to claim 27.

Claims 30, 34, and 48 have claim 13 as their method equivalent. The same arguments made above with respect to the non-obviousness of claim 13 apply equally to claims 30, 34, and 48.

Claims 31, 35, and 56 have claim 21 as their method equivalent. The same arguments made above with respect to non-obviousness of claim 21 apply equally to claims 31, 35, and 56.

Claims 14-20 are equivalent to claims 49-55, respectively. The same arguments made above with respect to the non-obviousness of claims 14-20 therefore apply equally to respective claims 49-55.



Finally, claims 22-24 are equivalent to claims 57-59, respectively. The same arguments made above with respect to the non-obviousness of claims 22-24 therefore apply equally to respective claims 57-59.

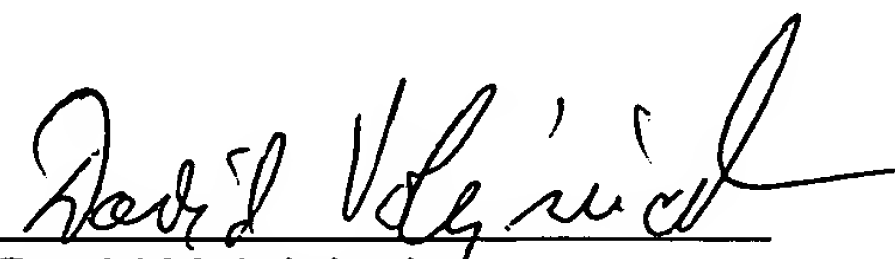
In view of the above remarks, applicant respectfully suggests that it has been amply shown that the combined teachings of Walker et al. and Bushey et al. do not render any of applicant's claims obvious. Applicant therefore respectfully requests that the Section 103(a) rejection of his claims based on Walker et al. and Bushey et al. be withdrawn.

The Examiner's rejection having been properly addressed and disposed of, applicant respectfully asserts that the application is now in condition for allowance. Applicant therefore requests that the application be reconsidered and thereafter be passed to issue.

Although the foregoing is believed to be dispositive of all issues in the application, if the Examiner deems that a telephone interview would advance prosecution, she is invited to call applicant's attorney at the number listed below.

Respectfully submitted,

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